

# Article



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# A Checklist of the Moths of Alaska

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#### **Abstract**

This article represents the first published complete checklist of the moth taxa, resident and occasional, recorded to date for Alaska. Seven-hundred and ten species are listed. General species distribution ranges within the state are included. Three North American records are listed for the first time: *Cydia cornucopiae* (Tengström); *Eucosma hohenwartiana* ([D. & S.]); *Acronicta menyanthidis* (Vieweg).

Key words: Alaska, checklist, Lepidoptera, moths, North America

# Introduction

The Lepidopteran fauna in Alaska is poorly documented in the literature and most reports are devoted to butterflies, which to many collectors are more charismatic than moths. Whereas butterflies are generally easily visible, many of the moth species are very small, secretive, and cryptically marked, and thus easily overlooked in the field. Additionally moths have been traditionally hard to identify, but that situation is changing now with the advent of various web sites and publication of new books. In most areas of the state, except for very early and very late in the season, blacklighting is not generally possible because of the long photoperiod south of the Arctic Circle, and twenty-four hour daylight northward. In the extreme southern portion and in the panhandle, blacklighting is possible for a few hours each night during the summer, weather permitting, if the lights are placed in shaded locations. Pheromone traps are effective for collecting some species, but have the disadvantage that only males are attracted. Consequently most collecting is by hand net and frequently requires beating the brush to disturb resting individuals. A few species visit flowers, where they are clearly visible. Other species fly rapidly over rock slides and scree slopes, but are not easily seen and even less easily collected. This situation most probably accounts for the paucity of Microlepidoptera records, where only the Tortricidae have been collected intensively. Based on the geographic size and vegetative diversity of the state, one would expect to find numerous microlepidopteran species, especially members of the Gelechioidea. To date, 710 species have been recorded from the state. Based on projections made by several lepidopterists, including an author of this paper (JDL), in a given region moth species outnumber butterfly species by a factor of 15–20:1. There are 84 butterfly species currently recorded for Alaska,

which gives a projected 1260–1680 number for moth species. Thus in all probability the current list represents about half of the moth species that occur in Alaska.

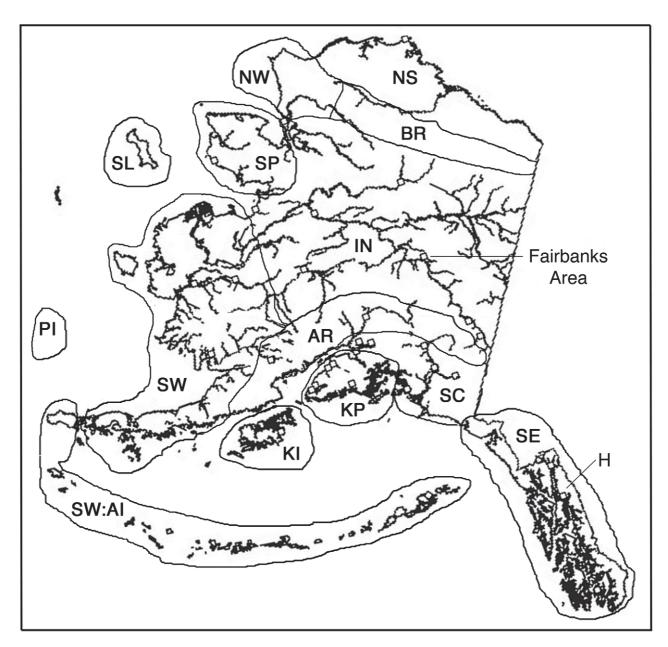
Data sources: The list that follows documents the known moth species for which we have been able to verify records. Various literature sources appear to have listed "Alaska" for some species based upon a range projection rather than hard data; such species are excluded here. In addition to our own extensive collecting (C. D. Ferris collection, Laramie, WY; K. W. Philip – ALS Collection, Fairbanks, AK), our sources include museum records, literature records, and information from many specialists who work on individual moth families. These sources include: Alaska Lepidoptera Survey (ALS); Alaska Reference Collection System (ARCS), USDA Forest Service, (Fairbanks, Anchorage, Juneau), AK; American Museum of Natural History (AMNH), New York, NY; Essig Museum of Entomology (EME), University of California, Berkeley, CA; Oregon State University collection (OSU), Corvallis, OR; National Museum of Natural History, Smithsonian Institution (USNM), Washington, DC; University of Alaska Museum (UAM), Fairbanks, AK; University of Alberta, Strickland Museum (UASM), Edmonton, Alberta, Canada; Canadian National Collection of Insects, Arachnids, and Nematodes (CNC), Ottawa, Ontario, Canada; fascicles from The Moths of America North of Mexico, R. W. Hodges, Editor-in-Chief, published by The Wedge Entomological Research Foundation (1972-2009); Landolt, et al. (2007); G. G. Anweiler, Edmonton, Alberta, Canada; C. D. Bird, Erskine, Alberta, Canada; Matt Bowser, Soldotna, AK; J. W. Brown (USNM), Washington, DC; R. L. Brown, Mississippi State, MS; Dominique Collet, Sterling, AK; C. V. Covell, Jr., Gainesville. FL; Lars Crabo, Bellingham, WA; D. R. Davis (USNM), Washington, DC; J. Dombroskie, Ithaca, NY; P. Gentili-Poole (USNM), Washington, DC; Matt Goff, Sitka, AK; J. B. Heppner, Gainesville, FL; R. W. Hodges, Eugene, OR; Lauri Kaila, Helsinki, Finland; Bernard Landry, Geneva, Switzerland; J-F Landry (CNC), Ottawa, Ontario, Canada; Lisa Lumley, Laurentian Forestry Centre, Quebec, Canada; Deborah Matthews Lott, Gainesville, FL; T. L. McCabe, Albany, NY; Hugh McGuinness, Sag Harbor, NY; P. A. Opler, Ft. Collins, CO; G. R. Pohl, Sherwood Park, Alberta, Canada; J. A. Powell (EME), Berkeley, CA; M. A. Quinn, Austin, TX; S. Rab Green (AMNH) New York, NY; John E. Rawlins (CMNH) Pittsburgh, PA; J. Razowski, Krakow, Poland; B. C. Schmidt (CNC), Ottawa, Ontario, Canada; S. Y. Siney, St. Petersburg, Russia; Joel Szymczyk, Lewisberry, PA; D. L. Wagner, Storrs, CT.

**Specimen depositories:** We have not made any attempt to list all of the locations where voucher specimens are placed, but we have attempted to list at least one depository. Immediately following each species entry there appears a number inclosed within boldface square brackets that indicates one or more depositories. The depository key is: [1] Alaska Lepidoptera Survey (ALS) collection, Fairbanks, AK; [2] C. D. Ferris collection, Laramie, WY; [3] University of Alaska Museum, Fairbanks, AK; [4] Alaska Reference Collection System, USDA Forest Service, (Fairbanks, Anchorage, Juneau), AK; [5] American Museum of Natural History, New York, NY: [6] National Museum of Natural History, Smithsonian Institution, Washington, DC; [7] Canadian National Collection of Insects, Arachnids, and Nematodes, Ottawa, Ontario, Canada; [8] Essig Museum of Entomology, University of California, Berkeley, CA; [9] Nova Scotia Museum, Halifax, Nova Scotia, Canada; [10] Museum of Comparative Zoology, Cambridge, MA; [11] Natural History Museum of Los Angeles County, Los Angeles, CA; [12] Oregon State University Collection, Corvallis, OR; [13] USDA, ARS Yakima Agricultural Research Laboratory, Wapato, WA; [14] Kenai National Wildlife Refuge, Kenai, Alaska; [15] C. Howard Grisham collection, Huntsville, AL; [16] Alaska (Territorial) Museum, Juneau, AK. [17] California Academy of Sciences, San Francisco, CA; [18] Zoology Museum, Helsinki, Finland. [19] Lars Crabo collection, Bellingham, WA; [20] University of Alberta, Strickland Museum, Edmonton, Alberta, Canada; [21] University of California, Davis, CA; [22] Carnegie Museum of Natural History, Pittsburgh, PA; [23] Canadian Centre for DNA Barcoding, Biodiversity Institute of Ontario, University of Guelph, Guelph, Ontario, Canada. The few instances where depositories are unknown are indicated by [?].

**Organization:** The arrangement of the checklist is phylogenetic for the higher-level taxa, whereas the general species are listed alphabetically. The general arrangement of the Microlepidoptera follows the order in Kristensen [1998]. The Tortricidae, Pyraloidea, Pterophoroidea, and Noctuoidea entries follow the respective arrangements by Brown (2005), Munroe & Solis [1998], Gielis (2003), and Lafontaine & Schmidt (2010). Additional information is to be found in Van Nieurerken *et al.* (2011). Recent synonymizations are entered as offset italic entries. The numbers in parentheses immediately to the right of the family names indicate the number of associated taxa. In several instances, a genus is cited without a species name. These entries relate to specimens that have been either barcoded or dissected, but the preparations could not be matched to described species for which genitalia illustrations are available. They may represent undescribed species, or Beringian species that lack full coverage

with genitalia illustrations in the available literature. These entries are additional but unknown species. The explanatory footnotes appear after the checklist.

Locality abbreviations: Alaska has been divided into the zones shown in Fig. 1. The following abbreviations are used in the checklist: AR = Alaska Range; BR = Brooks Range; H = Haines area; GB = Goldstream Bog nr. Fairbanks; IN = Interior Alaska; KI = Kodiak Island; KP = Kenai Peninsula; NS = North Slope; NW = Northwest Alaska; PI = Pribilof Islands; SC = Southcentral Alaska; SE = Southeast Alaska; SL = St. Lawrence Island; SP = Seward Peninsula; SW = Southwest Alaska; SW:AI = Aleutian Islands. Not shown on map: BC = Bonanza Creek State Forest Area, near Fairbanks; GB = Goldstream Bog nr Fairbanks; MD = Murphy Dome (near Fairbanks). Old records that cite "McKinley N.P." or Mt. McKinley N.P." have been updated to the current name: Denali National Park & Preserve and shown as Denali NPP. The communities of McKinley Park and McKinley Village have not undergone name changes. A community of Denali exists some distance SE of the Park. In some instances, only one locality is known, and that is shown without a zone designation.



**FIGURE 1.** Map of Alaska, showing zones treated in this paper. AR = Alaska Range; BR = Brooks Range; H = Haines area; GB = Goldstream Bog nr. Fairbanks; IN = Interior Alaska; KI = Kodiak Island; KP = Kenai Peninsula; NS = North Slope; NW = Northwest Alaska; PI = Pribilof Islands; SC = Southcentral Alaska; SE = Southeast Alaska; SL = St. Lawrence Island; SP = Seward Peninsula; SW = Southwest Alaska; SW:AI = Aleutian Islands. Not shown on map: BC = Bonanza Creek State Forest Area, near Fairbanks; GB = Goldstream Bog nr Fairbanks; MD = Murphy Dome (near Fairbanks).

# **CHECKLIST**

#### **ERIOCRANIIDAE** (2)

Eriocrania breviapex Davis [6] KP

Eriocrania semipurpurella pacifica Davis [6] KP; Third Judicial District, Seward

**HEPIALIDAE** (4)

Gazoryctra confusus (Hy. Edw.) [6, 7] KP; Latouche; Mt. Dewey; Sitka

Gazoryctra novigannus (B. & Benj.) [1]

Gazoryctra roseicaput (N. & D.) [1, 2] KP; SW:AI; Cordova; Mt. Dewey

Sthenopis purpurascens (Pack.) [1, 3, 5, 10] SC; SW:AI (Kasatochi Is.); Ft. Richardson; King Salmon;

Palmer; Valdez; Wasilla

**NEPTICULIDAE** (1)

Ectoedemia species [23] KP

ADELIDAE (2)

Adela purpurea Wlk. [1] IN

Nemophora bellela (Wlk.) [1, 8] IN; 7 mi SE & 17 mi SW of Cantwell; 63 mi NE Fox; Unalakleet

**INCURVARIIDAE** (2)

Greya punctiferella (Wlsm.) [6] SE; Yakutat

Greya variabilis Davis & Pellmyr [1, 7, 8] AR; IN; NS; NW; PI; SP; SW; Cape Thompson; Denali Hwy,

mi 32; Nome; St. George Is.; St. Paul Is., Umiat

TINEIDAE (6)

Monopis monachella (Hbn.) [6] IN; Ft. Yukon Monopis rusticella (Hbn.) [6] "Alaska"

Monopis spilotella Tengström [6] BR; IN; SC; Anaktuvuk Pass; Ft. Yukon; Matanuska; Nulato;

Rampart

Nemapogon ? granella L. [4] SC; Anchorage Nemapogon tylodes (Meyr.) [9] IN; Fairbanks Tinea pellionella (L.) [4] SC; Anchorage

**BUCCALATRICIDAE** (1)

Bucculatrix frigida Deschka [3] SC; Palmer

**GRACILLARIIDAE** (12)

Caloptilia alnivorella (Cham.) [4] IN; Fairbanks; Eielson Air Force Base

Caloptilia strictella (Wlk.) [1] IN
Caloptilia species [23] KP

Micrurapteryx salicifoliella (Cham.) [3, 4, 7] BC; IN; Circle City; Fairbanks; Kandik R.

Parectopa albicostella Braun [23] KP

Phyllocnistis populiella (Cham.) [1, 3, 23] IN; KP; Fairbanks Phyllonorycter alaskana Deschka [?] SC; 8 mi N of Palmer

Phyllonorycter apparella (H.-S.) [4, 6, 23] BC; IN; KP; SC; Cooper Landing; Delta Jct.; Fairbanks

= P. ontario (Free.)

**Phyllonorycter erugatus** Davis [6] H (20 km north)

Phyllonorycter nipigon (Free.) [6] IN; Delta Jct.; 10 mi SW of Fairbanks

Phyllonorycter scudderella (F. & B.) [6] IN; Delta Jct.

Phyllonorycter tremuloidiella (Braun) [4] BC

**YPONOMEUTIDAE** (3)

Ocnerostoma species [4] SC; Anchorage

Swammerdamia caesiella (Hbn.) [14, 23] KP

Zelleria species [4] SC; Anchorage

**ARGYRESTHIIDAE** (6)

Argyresthia calliphanes Meyr. [4] SC; Anchorage. Note 1

Argyresthia goedartella (L.) [4] SC; Cooper Landing; Anchorage

Argyresthia pygmaeella (Hbn.) [4, 7] BC; Anchorage; Fairbanks; Moraine Lake

Argyresthia tsuga Free. [4] Prince of Wales Is.

Argyresthia species 1 [23] KP Argyresthia species 2 [23] KP

PLUTELLIDAE (3)

Plutella xylostella (L.) [4] SC; Anchorage Rhigognostis interrupta (Wlsm.) [7, 14, 23] KP; Unalakleet Rhigognostis senilella (Zett.) [7] KP; Cooper Landing

**GLYPHIPTERIGIDAE** (1)

Glyphipterix sistes sistes (Heppner) [6, 7] SC; SE; Ketchikan; Matanuska

**YPSOLOPHIDAE** (1)

**Ypsolopha dentella** (F.) [3, 4] SC; Anchorage

LYONETIIDAE (1)

Lyonetia saliciella Bsk. [4, 7] KP; Seward

**OECOPHORIDAE** (4)

Endrosis sarcitrella (L.) [4] SE; Juneau

**Hofmannophila pseudospretella** (Staint.) [?] PI (an anthrophilic pest species)

Martyrhilda ciniflonella (L. & Z.) [1, 4] IN; AR; BC; Anchorage; College; Fairbanks; Nushagak River

Polix coloradella (Wlsm.) [1] AR

**ELACHISTIDAE** (11)

Agonopterix aff. arnicella (Wlsm.) [1] IN

Agonopterix canadensis (Bsk.) [4] SC; Anchorage

Agonopterix gelidella (Bsk.) [1] IN

**Agonopterix rosaciliella** (Bsk.) [6] West-central Alaska eastward

Elachista alpinella Staint. [7] SW:AI; Cold Bay

Elachista dagnirella Kaila [8] SC; Anchorage; 10 mi SE of Houston Elachista excelsicola Braun [8] AR; IN; 4 mi N Cantwell; Eagle Summit

Elachista olorinella Kaila [7] IN; Unalakleet

Elachista orestella Kaila [6] IN; KI; Afognak Is.; Ft. Yukon

Elachista zernyi Hartig [8] IN; SC; Anchorage; Cantwell area (7 mi SE, 17 mi SW, 4 mi N)

Semioscopis inornata Wlsm. [1, 3] AR; H

## **COLEOPHORIDAE** (9)

Coleophora elaeagnisella Kft. [7]IN; FairbanksColeophora ledi Staint. [8]IN; 7 mi SW EsterColeophora mayrella (Hbn.) [8]SC; Anchorage

Coleophora pruniella Clem. [7] SW; Naknek River; King Salmon

Coleophora rosaevorella McD. [7] IN; Fairbanks Coleophora sparsiatomella McD. [7] IN; Fairbanks Coleophora sparsipulvella Cham. [7] IN; Fairbanks

Coleophora species 1 [23] KP

Coleophora species 2 [7] IN; Fairbanks

#### **MOMPHIDAE** (5)

Mompha albapalpella (Cham.) [7] IN; Unalakleet Mompha idaei (Zell.) [7] SC; Talkeetna Mts.

Mompha sexstrigella (Braun) [14, 23] KP; near Ohmer Lake; Sterling

Mompha unifasciella (Cham.) [3] SC; Palmer Mompha species [1] AR; IN

# **SCYTHRIDIDAE** (2)

Scythris immaculatella Cham. [8] IN; 7 mi SW of Ester

Scythris species [1] IN

## **GELECHIIDAE** (21)

Anacampsis fragariella Bsk. [?] BC

Bryotropha similis (Staint.) [7, 8] IN; SC; Vic. Cantwell; Fox; Houston; Unalakleet

Carpatolechia proximella (Hbn.)

species complex [7, 23] IN; KP; NW; Nogahabara dunes 65 mi N Galena

Chionodes continuella (Zell.) [6] IN; Fairbanks; North Star; Steese Highway, 63 mi NE Fox Chionodes dolo Hodges [2, 6, 7] IN; NS; Eagle Summit; mi 250 Richardson Hwy; Unalakleet

Chionodes fictor Hodges [6]

Chionodes fimus Hodges [6] NS; Schrader Lake; Sagwon; Prudhoe Bay Chionodes lugubrella (F.) [2, 6, 8] H; IN; 12 mi S of Anderson; Fairbanks; Rampart

Chionodes occlusus (Braun) [2]

Chionodes permactus (Braun) [7] IN; Western Alaska; Unalakleet

Chionodes psilopterus (B. & Bsk.) [6] IN; Ft. Yukon

Chionodes sattleri Hodges [6, 8] IN; NS; Anderson; Cantwell, Schrader Lake Chionodes viduella (F.) [6, 8] AR; IN; NS; Denali NPP; Eagle Summit

Filatima species [7] NW: Nogahabara Dunes
Gnorimoschema alaskense Povolny PI; St. Paul Island. Note 2

Gnorimoschema vastificum Braun [7] IN; NW; Nogahabara dunes 65 mi N Galen; Kobuk dunes

90 mi E Kotzebue

Helcystogramma fernaldella (Bsk.) [?] IN; College

Neofaculta infernella (H.-S.) [7] IN; mi 250 Richardson Hwy

Prolita sexpunctella (F.) [1, 23] BR; KP

**Scrobipalpa** sp. nr. **murinella** (Duponchel) [23] KP. Designation by Nazari and Landry (2012)

Scrobipalpa atriplicella (F. v. Röslerstamm) [?] Alaska, localities not stated

**ALUCITIDAE** (1)

Alucita montana B. & L. [1] H

PTEROPHORIDAE (10)

Adaina montanus (Wlsm.) [1] H

Amblyptilia pica (Wlsm.) [4, 7] KP; Sunrise

Gillmeria pallidactyla (Haw.) [7, 14] KP; SP; Hope; Nome Hellinsia albilobatus (McD.) [7] IN; Unalakleet

Oidaematophorus brucei (Fern.) [2] IN; NS (Galbraith Lake); SE; MP 312 Richardson Hwy;

Nunatak

Oidaematophorus cineraceus (Fish) [1, 2] H; IN; Fairbanks Oidaematophorus rogenhoferi (Mann) [6] IN; NS; Ruby

= O. alaskensis B. & L

Paraplatyptilia petrodactylus (Wlk.) [1, 2, 3, 7] IN; NS; Popof Island.

Platyptilia johnstoni Lange [7, 20] SW;AI; St. George Is.; St. Paul Is.

Stenoptilia mengeli Fern.[1, 2, 7] H

**COPROMORPHIDAE** (1)

Lotisma trigonana (Wlsm.) [6] SC; Orca [1 record, 1899]

**CHOREUTIDAE** (2)

Caloreas new species [7] IN; SC; Anchorage; mi 250 Richardson Hwy Note 3

Choreutis diana (Hbn.) [4] BC

**TORTRICIDAE** (142)

Acleris arcticana (Gn.) [1, 2] IN; SC; Ft. Wainwright; MP 40, Steese Hwy

Acleris bowmanana (McD.) [1, 2] H
Acleris britannia Kft. [1, 2] H; IN
Acleris caliginosana (Wlk.) [1, 2] IN
Acleris capizziana Obr. [1] IN

Acleris effractana (Hbn.) [1, 2, 3, 4, 8] H; IN; KP; Dalton Hwy at Yukon River bridge; Ft. Wainwright;

MP 312 Richardson Hwy; MP 214 Parks Hwy; Mendeltna Ck.,

Glenn Hwy; MP 49 Steese Hwy; Robertson Lake, MP 1348

Alaska Hwy Note 4

Acleris gloveranus (Wlsm.) [4] H; SE
Acleris hastiana (L.) [1, 2] IN; SC
Acleris hudsoniana (Wlk.) [1, 2] IN
Acleris logiana (Clerck) [4] IN

Acleris maccana (Treit.) [2] H; IN; Chatanika; Fairbanks; Ft. Wainright

Acleris maximana (B. & Bsk.) [1, 2, 4] IN; KP (Broadview Guard Sta.; Silvertip); Byers Lake; Ft. Wick

Acleris nigrolinea (Rob.) [1] H

Acleris notana (Don.) [4] IN; Sunrise Inn

Acleris schalleriana (L.) [1, 2, 4] IN

Aethes deutschiana (Zett.) [1, 2] IN; KP; MD; NS

Aethes sexdentata Sabourin & Miller [1, 2] H
Aethes smeathmanniana (F.) [7] SC; SE

Ancylis comptana (Frölich) [6] "Alaska" (cited in Heinrich, 1923)

Ancylis geminana (Don.) [4] IN; SC; NS

Ancylis metamelana (Wlk.) [4] NS
Ancylis subaequana kincaidiana (Fern.) [4, 8] IN
Ancylis tineana (Hbn.) [23] KP

Ancylis unguicella (L.) [4, 7] NS; MP 250 Richardson Hwy

Aphelia gregalis Razowski [6] AR. Note 5

**Aphelia septentrionalis** Obr. [2, 5, 15] BR; IN; 29 mi S of Deadhorse

Apotomis near capreana (Hbn.) [8] AR

Apotomis frigidana (Pack.) [1, 7, 8] H; IN; PI; MP 250 Richardson Hwy; St. Paul Is.

Apotomis removana (Kft.) [1] IN

Apotomis spinulana (McD.) IN. Note 6

Apotomis spurinfida Adamski [1, 2] H
Apotomis tertiana McD. [1, 2, 4, 8] IN; NS

Archepandemis coniferana Mutuura [2] SC; Anchorage

Archips alberta (McD.) [1] BC

Archips cerasivorana (Fitch) [4] SC; Anchorage area

Archips packardiana (Fern.) [4] BC; IN

Archips rosana (L.) [2, 3, 4] SC; Anchorage
Archips tsuganus (Powell) [2, 4] SC; Anchorage
Argyrotaenia occultana Free. [1, 2, 23] IN; KP; Fairbanks
Argyrotaenia velutinana (Wlk.) [1] IN; Fairbanks area

Argyrotaenia species [2] H

Choristoneura albaniana (Wlk.) [1, 2] IN; NS; SC Choristoneura biennis Free. [4] SE

Choristoneura conflictana (Wlk.) [1, 2, 4] IN; SE Choristoneura fractivittana (Clem.) [1] H

Choristoneura fumiferana (Clem.) [3, 7] IN; Fairbanks

Choristoneura orae Free. [1, 2, 4, 7] H; IN; SC; SE; Dyea; Fairbanks; Skagway

Clepsis danilevskyi Kostyuk [1, 8] NS; Schrader Lake

Clepsis illustrana (Krogerus) [1, 2, 4, 8] IN Clepsis kearfotti Obr. [8] IN

Clepsis moeschleriana (Wocke) [1, 2, 4, 8, 23] BR; IN; KP; NS; Schrader Lake

Clepsis peritana (Clem.) [1, 2, 8] H; IN; KP

Clepsis persicana (Fitch) [1, 2, 3, 8, 23] H; IN; KP; NS; NW; SC; SP

Clepsis virescana (Clem.) [2, 4, 8] IN
Cochylis nana (Haw.) [4] IN
Cochylis species [23] KP

Cydia cornucopiae (Tengström) [2, 4]	IN (North America record)
Cydia piperana Kft. [3]	KP
Cydia pomonella (L.) [2]	H
Cydia prosperana (Kft) [7, 4, 8]	IN; KP; NW; SE; Seward, Umiat
Cydia strobilella (L.) [2, 4]	IN; KP; SC; SE; Anchorage; Fairbanks; Homer; Nenana Hwy; Seward; Sitka
Cydia near succedana ([D. & S.]) [2]	IN
Decodes horariana (Wlsm.) [7]	IN; Fairbanks
Dichrorampha sedatana (Bsk.) [2, 4, 8]	IN
Dichrorampha simulana (Clem.) [7]	AR; Paxson, 22 km N
Eana argentana (Clerck) [1, 2, 3, 7, 15]	AR; IN; KP; SC; Anchorage; Fairbanks; MP 61.7 Dalton Hwy;
	Tok
Eana osseana (Scop.) [1, 2, 7]	AR; BR; H; KP; SP; SW
Endothenia affiliana McD. [8]	IN
Epiblema simploniana (Dup.) [7, 8]	BR; IN; NS; Anaktuvuk Pass
Epinotia arctostaphylana (Kft.) [4]	IN
Epinotia castaneana (Wlsm.) [1, 2]	H
Epinotia columbia (Kft.) [1, 2]	BC; H; NS; Dalton Hwy at Jim River. <b>Note 7</b>
Epinotia cruciana (L.) [2, 7, 8]	H; IN; NS; SC; Big Delta; Fort Wrigley; Isabel Pass; King Salmon; Naknek River; Richardson Hwy, MP 206, 250; Unalakleet
Epinotia lomonana (Kft.) [1, 2]	Н
Epinotia medioplagata (Wlsm.) [1, 2, 8]	H; IN
Epinotia nisella (Clerck) [1, 2, 4]	BC; H; IN; SC; Anchorage
Epinotia pulsatillana (Dyar) [1, 2, 4]	IN
Epinotia radicana (Heinr.) [1, 4]	IN; SC; Anchorage; Copper Center
Epinotia rectiplicana (Wlsm.) [1, 7]	H; KP; SW; King Salmon; Naknek River
Epinotia removana McD. [?]	BC
Epinotia solandriana (L.) [1, 2, 3, 4, 7]	IN; NS; SE; Anchorage; Cooper Landing; Copper River; Cordova; Excursion Inlet; Juneau; KP; Kulik Lake; Nashagak River; Ninilchik; Porcupine Butte; Sunrise; Willow
Epinotia solicitana (Wlk.) Group [1]	IN
Epinotia terracoctana (Wlsm.) [2]	Н
Epinotia transmissana (Wlk.) Group [2]	IN
Epinotia trigonella (L.) [1, 2, 3, 4] = E. indecorana (Zett.)	IN; KP
Epinotia vagana Heinr. [1]	Н
Epinotia species 1 [1, 2]	IN
Epinotia species 2 [2]	IN; KP
Epinotia species 3 [2]	Н
Eucosma agricolana (Wlsm.) [8]	IN; NS
Eucosma near biplagata (Wlsm.) [2]	NW
Eucosma dodana Kft. [6, 7]	NS; PI; Schrader Lake; St. Paul Is.
Eucosma hohenwartiana ([D. & S.]) [4] = E. pupillana (Hbn.)	NW (North America record)
Eucosma species [4]	IN
Eulia ministrana (L.) [1, 2, 4, 7, 23]	IN; KP; SC; SE; Anchorage; Big Delta; Mt. Fairplay; MP 250 Richardson Hwy MP 32 Taylor Hwy; Naknek
Grapholita? interstinctana (Clem.) [8]	IN (Eagle Summit)
Gypsonoma fasciolana (Clem.) [2, 4, 8]	IN; Dalton Hwy at Jim R. and Yukon R. bridge
Gypsonoma parryana (Curt.) [2, 7]	IN; NS; SW; Barton Is.; Camden Bay;
	MP 250 Richardson Hwy; Unalakleet

Gypsonoma species [8] IN (Eagle Summit) Hedya atropunctana (Zett.) [23] KP; NS; Dietrich River AR; IN; NW; Big Delta; Umiat Hystrichophora asphodelana (Kft.) [1, 2, 3, 7] Lozotaenia hesperia Powell [1, 2, 7] BR; NS; SC; Anchorage; Umiat Notocelia purpurissatana (Heinrich) [2] IN; Fairbanks area; Ft. Wainright; MP 39 Steese Hwy Olethreutes bipartitana (Clem.) [7, 8] IN; KI; KP; SC; Afognak Is.; Kodiak; Naknek Olethreutes? buckellana (McD.) [8] IN H; KP Olethreutes costimaculana (Fern.) [1, 2] Olethreutes galaxana Kft. [6] Alaska. Note 8 Olethreutes glaciana (Mösch.) [2, 3, 4, 8, 23] H; IN; KP; SC; Olethreutes heinrichana McD. [8] NS (Galbraith Lake); Houston Olethreutes inquietana (Wlk.) [1, 2, 7, 15] NS; IN; PI; MP 298.5 Dalton Hwy; St. Paul Is. Olethreutes mengelana (Fern.) [1, 15] IN; NS Olethreutes metallicana (Hbn.) [2, 4, 7, 8, 23] IN; KP; SC; Anchorage; Moose Pass; MP 249 Richardson Hwy; Seward BC; BR IN; NS; Fairbanks Olethreutes nordeggana (McD.) [1, 2, 3, 8, 15] Olethreutes obsoletana Zett. [1] AR; BR; SP = O. kennethana McD. Olethreutes palustrana (L. & Z.) [6, 8] NS; Galbraith and Schrader Lakes IN; NS; MP 250 Richardson Hwy Olethreutes schulziana (F.) [2, 4, 7] Olethreutes septentrionana (Curt.) [8] IN; NS; SC = O. schaefferana (H.-S.) Olethreutes turfosana H.-S. [1, 2, 4, 7, 8] IN; NS; SC; SP; MP 250 Richardson Hwy Olethreutes species [1, 8] 10 mi S. Houston; Sterling **Orthotaenia undulana** ([D. & S.]) [2, 3, 23] IN; KP Phaneta camdenana (McD.) [1, 2, 7, 8] IN; NS; Camden Bay Phaneta insignata (Heinr.) [8] SC Phaneta montanana (Wlsm.) [8] IN; MD Phaneta southamptonensis (Heinr.) [1] NS Phaneta species 1 [1, 2] NW Phaneta species 2 [1] NS Phtheochroa fulviplicana (Wlsm.) [4] NS BR (Anaktuvuk Pass); NS Phtheochroa vulneratana (Zett.) [2, 4] Pseudosciaphila duplex (Wlsm.) [2] Retinia metallica (Bsk.) [2] Fairbanks Rhopobota naevana (Hbn.) [2] NS SC Rhyacionia buoliana ([D. & S.]) [4] Selenodes concretana (Wocke) [4, 6, 8] Sparganothis rubicundana (H-S.) [6] Kotzebue; Sagwon; Umiat; Unalakleet; Geillini Lake [Stone Mountain] IN; NS; SC; Schrader Lake **Tia enervana** (Ersch.) [4, 6, 8] = T. vulgana (McD.)Xenotemna pallorana (Rob.) [?] Alaska, no locality cited; [Chapman & Lienk, 1971] Zeiraphera canadensis Mutuura & Free. [?] SC; Anchorage SE; Juneau Zeiraphera fortunana (Kft.) [2] Zeiraphera griseana (Hbn.) [1, 2] H; IN Zeiraphera improbana (Wlk.) [6] NS; Schrader Lake H; KP; SC; Alder Beach; Anchorage; MP 39 Steese Hwy Zeiraphera unfortunana Ferris & Kruse [1, 2, 3] Zeiraphera vancouverana McD. [2, 4] SE; SW:AI; Dutch Harbor; Juneau. Note 9

SESIIDAE (9)

Albuna pyramidalis (Wlk.) [1, 2, 3, 4, 7, 15, 23] BC; IN; KP; NS; SE; Anchorage; Fairbanks; MP 8, 226 Dalton

Hwy; Seward

Paranthrene robiniae (Hy. Edw.) [?] Alaska, localities not stated. Note 10

Paranthrene tabaniformis (Rottemburg) [?] Cooper Landing Synanthedon arctica (Beut.) [6, 22] Kodiak; Ruby

Synanthedon bolteri (Hy. Edw.) [?] Alaska, localities not stated. Note 10 Synanthedon culiciformis (L.) [4, 7] Anchorage; Cooper Landing; Sunrise

Synanthedon novaroensis (Hy. Edw.) [7] Skagway Synanthedon polygoni (Hy. Edw.) [6] Lazy Bay Synanthedon saxifragae (Hy. Edw.) [6] Ft. Yukon

PYRALIDAE (16)

Acrobasis tricolorella Grt. [1, 2] H

Anerastia lotella (Hbn.) [4] NW; Nogahabara Dunes, Koy-Now NWR; Ft. Yukon

Dioryctria abietivorella (Grt.) [1] H

Dioryctria reniculella (Grt.) [1, 2] H. Note 11

Dioryctria reniculelloides Mutuura & Mun. [4, 23] KP; SC; Anchorage

**Ephestia kuehniella** Zell. [4] Fairbanks; occurs in stored grain products and bee hives

Homoeosoma phaeoboreas Goodson & Neunzig [2] Fairbanks

Philodema rhoiella (Dyar) [6] NS (Schrader Lake)

Pima boisduvaliella (Gn.) [2] NS
Plodia interpunctella (Hbn.) [3] Note 12
Polopeustis arctiella (Gib.) [1, 2, 3] NS

Pyla aequivoca Heinr. [6] Near Ft. Yukon

Pyla fusca (Haw.) [1, 2] BR; KP; NW; Nogahabara Dunes, Koy-Now NWR

Sciota termitalis (Hulst) [?] Ft. Yukon Sciota yuconella (Dyar) [7] Ft. Yukon

Vitula serratilineella Rag. [4] IN; KP; Fairbanks, Palmer

CRAMBIDAE (40)

Agriphila ruricolella (Zell.) [2] BC Anania funebris glomeralis (Wlk.) [1] H

Anania mysippusalis (Wlk.) [2] IN; Fairbanks Catoptria latiradiella (Wlk.) [1, 2, 7] H; Anchorage

Catoptria oregonica (Grt.) [2] H

Catoptria trichostoma (Christoph) [1, 2, 7, 15] BR; IN; NS; mi 32 Denali Hwy; Unalakleet

Chrysoteuchia topiarius (Zell.) [5] IN; SE; Ketchikan; Montana Creek

Crambus alienellus (Zinck.) [5, 7] IN; NW; SE; Anchorage; Buckland, Kotzebue Sound;

Ketchikan; Montana Creek; Seward

Crambus bidens Zell. [7] Anchorage
Crambus hamellus (Thunb.) [7] Lawing

Crambus pascuellus (L.) [7] Anchorage; Unalakleet

Crambus perlellus innotatellus (Wlk.)

[1, 2, 3, 4, 7, 23] BC; H; KI; KP; SC; SE; Anchorage; Kodiak

Crambus unistriatellus Pack. [7] Anchorage; Big Delta
Crambus whitmerellus Klots [1, 7] KP; SC; Big Delta; Lawing

Eudonia albertalis (Dyar) [2] H
Eudonia commortalis (Dyar) [2] H

**Eudonia alpina alpina** (Curtis) [6, 7] Unalakleet

= E. madgei Mun.

Eudonia alpina lugubralis (Wlk.) [2] H
Eudonia spenceri Mun. [1, 2] H; KP
Evergestis funalis columbialis Mun. [1, 2] BC; H; IN

Gesneria centuriella beringiella Mun.

[1, 2, 3, 7, 15, 23] BC; IN; KP; SC; SE; SP; Fairbanks

Loxostege anartalis albertalis B. & McD. [2, 15] BC; IN; NS

Loxostege commixtalis (Wlk.) [1, 7] IN; Big Delta; Eagle Loxostege sticticalis (L.) [1, 15] IN; MP 188.6 Dalton Hwy

Orenaia arcticalis Mun. [?6] BR Ostrinia marginalis (Wlk.) [2] BC

Pediasia species near aridella edmontella

(McD.) [1] Homer

Pediasia browerella (Klots) [1, 2, 7, 15] NS; NW; Cape Thompson; Deadhorse; Denali Hwy mi 32;

Unalakleet

Pediasia trisecta (Wlk.) [6]Popof Is.; Seldovia; YakutatPediasia truncatella (Zett.) [2, 7]IN; Big Delta; Unalakleet

Pyrausta nicalis (Grt.) [2] H

Pyrausta subsequalis borealis Pack. [1, 2, 7] BR; IN; Big Delta; Fairbanks; mi 114 Steese Hwy

Pyrausta tuolumnalis B. & McD. [2] BC

Scoparia biplagialis afognakalis Mun. [6, 7] KI; Afognak; Kodiak

Scoparia biplagialis pacificalis Dyar [1, 2] H

**Tehama bonifatella** (Hulst) [5] SE; Auke Bay

Udea alaskalis (Gib.) [1, 2, 7] IN; NS; PI; Collinson Pt.; St Paul Is.; mi 250 Richardson Hwy

Udea beringialis Mun. [1, 2, 7] BR; SC; Nulato; Nunivak Is.; Unalakleet

Udea inquinatalis (Zell.) [7]MP 250 Richardson HwyUdea itysalis kodiakensis Mun. [7]KI; Afognak; Cold Bay; KodiakUdea itysalis tillialis (Dyar) [2, 3, 7]H; KP; Curry; near Cooper Landing

Udea radiosalis (Mösch.) [1, 2] H; KP; Cape Thompson

**Udea washingtonalis nomensis** Mun. [4, 6, 7] KP; PI; Anchorage; Cottonwood Bay; Cordova; Nome; Nulato;

Sunrise; Unalaska

Udea washingtonalis pribilofensis Mun. [7, 17] PI; St. Paul Is.; St. George Is.

Udea washingtonalis washingtonalis (Grt.) [2, 23] KP; SE; Ketchikan

# **DREPANIDAE** (6)

Ceranemota fasciata (B. & McD.) [1] H

**Drepana arcuata** Wlk. [1, 6] BC; IN; Fairbanks; Rampart

Drepana bilineata (Pack.) [2, 4] H
Euthyatira pudens (Gn.) [1] H

Habrosyne scripta (Gosse) [1, 4, 13] IN; SC; SE; Anchorage; Fairbanks; Palmer; Sunrise

Pseudothyatira cymatophoroides (Gn.) [2] H

#### **GEOMETRIDAE** (140)

Antepirrhoe atrifasciata (Hulst) [3] H

Antepirrhoe fasciata B. & McD. [6, 7] Ketchikan; Rampart

Antepirrhoe semiatrata (Hulst) [2, 6, 7] H; IN; Big Delta; Fairbanks; Ketchikan

Anticlea multiferata (Wlk.) [?] GB; Rampart

Anticlea vasiliata Gn. [3, 6, 7] Anchorage; Hope; Ketchikan; Palmer

Archiearis infans (Mösch.) [1, 3] IN; SC

Aspitates forbesi Mun. [1, 2, 15] BR; IN; NS; Fairbanks

Aspitates orciferarius (Wlk.) [1, 2] BC Aspitates taylori (Butl.) [1] AR; IN Cabera borealis (Hulst) [1, 2, 13] BC; IN; Palmer Cabera erythemaria Gn. [4, 12] H: Delta Jct. Cabera exanthemata (Scop.) [1, 2, 3, 15] BC; GB; H; IN; KP; MD; SC; MP 188.6 Dalton Hwy; Anchorage; Fairbanks; near Fox; Willow Cabera variolaria Gn. [1, 2] GB; H Campaea perlata (Gn.) [1, 2, 3, 4, 13, 23] BC; H; IN; KP; SC; SE; Anchorage; Fairbanks; Palmer Carsia sororiata (Hbn.) [1, 7, 12] IN; KI; KP; SC; SP; SW; Driftwood BC; H; IN; Ketchikan Ceratodalia gueneata Pack. [1; 2, 6] Cladara limitaria nigroangulata (Stkr.) [1, 3, 6, 7] IN; SC; SE; Anchorage; Fairbanks; Ketchikan Colostygia circumvallaria Hbn. [1, 2, 3, 6, 7] AR; IN; SP; Denali NPP; Fairbanks; Juneau; Nome. Species status by Schmidt & Anweiler (2010) Cyclophora pendulinaria (Gn.) [1, 2, 3] BR; H; IN Digrammia denticulata (Grt.) [2] BCDigrammia rippertaria (Dup.) [6] Rampart; Ft. Yukon Digrammia ubiquitata Fgn. [6] Rampart; Ft. Yukon; Ketchikan Dysstroma brunneata (Pack.) [1, 2] H; KP Dysstroma citrata (L.) [1, 2, 4, 7, 12, 23] AR; BC; H; IN; KP; SC; SE; SW; Afognak; Bering Is.; Big Delta; Cordova; Excursion Inlet; Homer; Ketchikan; King Salmon; Sitka; Unalakleet; Unalaska Ketchikan. Note 13 Dysstroma colvillei Blackmore [6, 12] H; KP Dysstroma hersiliata (Gn.) [1, 2] **Dysstroma pseudimmanata** (Heydemann) [1, 2, 3, 4, 6, 7, 12] H; IN; Anchorage; Denali NPP; Ketchikan. Note 14 **Dysstroma sobria** Swett [12] Ketchikan Ecliptopera silaceata ([D. & S.]) [1, 2, 3, 6, 7, 13, 23] H; IN; KP; SC; SE; SW; Anchorage; Cordova; Curry; Denali NPP; Fairbanks; Ketchikan; Nulato; Rampart; Shugak Bay; Skagway; Unalakleet Ectropis crepuscularia ([D. & S.]) [4] SE; Ketchikan. Discussion of this taxon in Schmidt & Anweiler (2010) Entephria bradorata (Mun.) [1, 7, 11] KI; NS; SP; SW:AI; Atigun Pass; Cape Thompson; Cold Bay; Driftwood; Unalakleet Entephria kidluitata (Mun.). [1, 7] NS; Cape Thompson Entephria lynda Troub. [6, 7] NS; Chandler Lake; Noluck Lake Entephria multivagata (Hulst) [7] Entephria polata (Dup.) [1, 6, 7, 12] AR; IN; KI; SL; SP; SW; Driftwood; Umiat; Unalakleet Entephria takuata (Tayl.) [1, 2] Η Enypia packardata Tayl. [1, 2] H; SE Enypia venata (Grt.) [1, 2, 6] H; SE; Funter Bay **Epelis truncataria** (Wlk.) [1, 2, 7, 12] AR; BC; GB; IN IN; KI; SC; Anchorage; Cordova; Denali NPP; Fairbanks; Epirrhoe alternata (Müller) [1, 2, 3, 7, 13] Ft. Yukon; Naknek; Sitka; Yakutat BC; IN; KI; SE; SP; SW; Canberg Sta.; Denali NPP; Fairbanks; Epirrhoe sperryi Herbulot [1, 2, 12] Glenallen; Ketchikan; Nome Epirrita undulata (Harrison) [1, 2, 3, 5, 23] H; KP; Anchorage; Eagle River, Excursion Inlet. Note 15 **Eulithis destinata** (Mösch.) [1, 2, 3, 6, 7, 23] AR; IN; KP; SE; SP; SW; Delta Jct., 32 km S; Denali NPP (Sheldon Pass); Eagle River; Ketchikan; King Salmon; Nome; Nulato; Nushayak; Paxson, 22 km N; Rampart; Seward; Sitka; Unalakleet **Eulithis populata** (L.) [1, 6] AR; SC; SW; near Cape Pierce; Denali NPP; Palmer Eulithis propulsata (Wlk.) [2, 6, 7, 13] H; KP; SW:AI; Eagle River; Ketchikan; Nulato; Rampart; Ruby; Seward; Unalaska

**Eulithis testata** (L.) [1, 6, 7, 23] BC; IN; KP; SC; College; Ft. Yukom; Rampart BC; H; IN; KP; Delta Jct., 32 km S; Fairbanks; Ft. Yukon; Eulithis xylina (Hulst) [1, 2, 3, 6, 7, 13, 23] Nulato; Rampart; Ruby; Sterling Euphyia unangulata intermediata (Gn.) [2] BC; IN; Fairbanks Eupithecia absinthiata (Clerk) [2] H; IN; Fairbanks Eupithecia albicapitata Pack. [2, 15] IN; KP; NS; MP 188.6 Dalton Hwy Eupithecia annulata (Hulst) [2, 6] Ft. Wainright; Cordova; West Fairbanks Eupithecia assimilata Dbldy. [2] IN; KP; SE; Ketchikan Eupithecia bryanti Tayl. [1, 2, 7] H; SP; Juneau; 22 km N of Paxson Eupithecia casloata (Dyar) [2] NS Eupithecia cretaceata (Pack.) [1, 2, 6] H; Ketchikan Eupithecia gelidata Mösch. [1, 2, 6] SW; Agnes Lake; Ketchikan; Popoff Is. SE; Anchorage; Skagway; Sitka Eupithecia graefii (Hulst) [2, 6] Eupithecia harrisonata McKay [2] SE (Skagway) Eupithecia interruptofasciata Pack. [2] H; IN Eupithecia lachrymosa (Hulst) [2, 3] BC; IN; Fairbanks; Sterling Eupithecia misturata (Hulst) [2] IN Eupithecia nimbicolor (Hulst) [2] AR; BC; Denali NPP Eupithecia niphadophilata (Dyar) [2] IN **Eupithecia olivacea** Tayl. [2] NS; Umiat Eupithecia pygmaeata obumbrata Tayl. [7] Eupithecia satyrata (Hbn.) [2, 3, 6, 23] IN; SC; Fairbanks; Yakutat Eupithecia sewardata Bolte [7] Seward Eupithecia sharronata Bolte [2, 14] KP; SC Eupithecia succenturiata (L.) [23] KP Eupithecia tripunctaria H.-S. [2, 6] H; Popoff Is.; Ungava Is. Eupithecia species (? undescribed) [2] Fairbanks **Gnophos macguffini** Smiles [2] **Holarctias sentinaria** (Gey.) [1, 2, 3, 7, 15] AR; BR; NS; SC; SP; Denali NPP (Sheldon Pass); Ft. Yukon; Omilak; Wiseman airport Horisme incana Swett [2, 6] BC; Ft. Yukon Hydriomena exculpata B. & McD. [7] SE; SW; Ketchikan; Naknek Hydriomena furcata (Thunb.) [1, 2, 4, 7, 23] AR; H; KP; SP; SW; Anchorage; Big Delta; Juneau; King Salmon; Paxson; Unalakleet Hydriomena irata irata Swett [6] KP; SE; Cordova; Ketchikan; Yakutat H; IN; Fairbanks Hydriomena renunciata (Wlk.) [2] SC **Hydriomena ruberata** (Freyer) [2] SE; Sitka (Alaska record, 2012) Hydriomena speciosata (Pack.) [3] Idaea rotundopennata (Pack.) [1] Lambdina fiscellaria lugubrosa (Hulst) [4] SE; Bradfield Canal IN; SC; SP; Fairbanks; Palmer (Choi, 2000) Lampropteryx suffumata ([D. & S.]) [5] Leucobrephos brephoides (Wlk.) [1, 2, 3] IN Lobophora montanata Pack. [13] SC; Palmer **Lobophora nivigerata** Wlk. [1, 2, 6, 7, 13, 15] AR; IN; SC; Anchorage; Fairbanks; MP 188.6 = L. magnoliatoidata (Dyar) Dalton Hwy; Denali NPP; Ketchikan; Palmer. Note 16 Lycia rachelae (Hulst) [1, 3] IN; KP; Palmer SC; Palmer Lycia ursaria (Wlk.) [3] Macaria sexmaculata Pack. [1] Macaria signaria (Hbn.) [2, 15] BC; H; IN; Fairbanks; MP 188.6 Dalton Hwy Melanolophia imitata (Wlk.) [4] Southern Alaska

KP; SE; Ketchikan; Nulato; Skagway

BC; GB; IN; KP; Ft. Yukon

**Mesothea incertata** (Wlk.) [1, 2, 3, 15]

Mesoleuca gratulata (Wlk.) [6]

Metanema determinata Wlk. [2] BC; IN; Fairbanks Operophtera bruceata (Hulst) [1, 2, 3, 4, 12, 13] IN; KI; KP; SC; Anchorage; Eagle River; Dillingham; Fairbanks; Karluk Lake; Matanuska; Palmer; Rampart; Sunrise Perizoma alaskae (Hulst) [1, 2, 6] SP; SW:AI; Nashaga River; Nulato [may be form of *P. grandis*] Perizoma costiguttata (Hulst) [12] ΚI **Perizoma grandis** (Hulst) [1, 2, 3, 6, 23] H; KP; SE; Cordova; Juneau; Ketchikan; Nulato BC; IN; KP; SC; Excursion Inlet; Fairbanks; Palmer Plemyria georgii Hulst [1, 3, 4, 7, 13, 23] Psychophora sabini Kby. [1, 2, 7, 15] IN; NS; SL; Chandler Lake; MP 247-248, 302-303 Dalton Hwy; Noluck Lake Psychophora species nr. sabini [1, 7] IN; Eagle Summit Psychophora species nr. suttoni [1, 15] BR; MP 237 Dalton Hwy Eagle Creek. Note 17 PI; St.George & St. Paul Is. Note 17 **Psychophora** new species [7] Rheumaptera hastata (L.) [1, 2, 3, 4, 6, 7, 13, 15] H; IN; KP; NS; SC; SE; Anchorage; Curry; Ester; Moose Pass; Palmer; Umiat. Note 18 Rheumaptera subhastata (Nolcken) [3, 4, 6, 7, 12, 15] H; IN; KP; NS; SC; SE; Anchorage; Dillingham; Kasitna Bay; Naknek; Seward; Wrangell. Note 18 Rheumaptera undulata (L.) [1, 2, 6] H; IN; SE; Ft. Yukon; Ketchikan Scopula cajanderi septentrionicola McD. [2] AR; BR; SP; Arctic Village; Denali NPP (Stony Creek); Omilak, Darby Mts. Scopula frigidaria (Mösch.) [1, 2, 4, 7] AR; BC; BR; IN; KI; KP; NS; SC; SW; Anchorage; Denali NPP (Alaska Pass); Fairbanks; Ft. Yukon; King Salmon; Olga Bay; Rampart; Umiat; Unalakleet BC; BR; IN; NW; SE; SP; Big Delta; Fairbanks; Kennicott; Scopula inductata (Gn.) [2, 15] Kotzebue; MP 166 Dalton Hwy; Naknek River; Nome; Skagway; Tanana Scopula junctaria (Wlk.) [13] SC; Palmer Selenia alciphearia Wlk. [2, 3] AR; IN; Fairbanks Sericosema juturnaria (Gn.) [?6] "Alaska" [Packard, 1876] Sicya macularia (Harr.) [1, 3, 4, 6, 7, 13] AR; BC; H; IN; SC; SE; Anchorage; Delta Jct., 32 km S; Fairbanks; Palmer; Rampart; Sterling. Note 19 Spargania luctuata ([D. & S.]) [1, 2, 3, 4, 6, 7, 12, 13, 23] IN; KI; KP; SC; SE; SW; MP 226 Dalton Hwy; MP 114 Steese Hwy; Anchorage; Curry; Fairbanks; Hope; King Salmon H; IN; KI; SC; SE; SP; Anchorage; Cordova; Homer; Isabel Spargania magnoliata Gn. [1, 2, 4, 6, 7] Pass; Ketchikan; Nome; Seward; Sunrise Speranza bitactata (Wlk.) [1, 4] BC; H; IN Speranza boreata Fgn. [1, 2] AR; H; IN; SC; SW; Palmer; Fairbanks area (Ester & Murphy Domes) **Speranza brunneata** (Thunb.) [1, 3, 4, 15, 23] AR; BC; IN; KP; SC; SW; Fairbanks Speranza loricaria (Evers.) [1] IN; KP H. Note 20 Speranza occiduaria (Pack.) [2] = *S. andersoni* (Swett) Spodolepis danbyi (Hulst) [1] SC; SE. Note 21 Stamnodes topazata (Stkr.) [1, 4. 6, 7] AR; BC; IN; KP; SC; SP; Anchorage; Cooper Landing; Denali NPP; Eklutna; Moose Pass; mi 205 Alaska-Richardson Hwy; Spenard Stenoporpia pulmonaria albescens (Hulst) [5] "Alaska"—no locality stated Thallophaga hyperborea (Hulst) [6] TL Virgin Bay; Prince William Sound Thera otisi (Dyar) [2] Η

Trichodezia albovittata (Gn.) [1, 2, 4, 7, 12, 13] BC; IN; KP; SE; Anchorage; Barnshaw; Fairbanks; Homer;

Hope; Ketchikan; Nulato; Palmer; Sitka; Skagway; Sunrise

Venusia cambrica Curt. [2, 4, 12] H; Glen Hwy; Sunrise

Venusia pearsalli (Dyar) [6, 7] KP; Hope; Ketchikan; Seward

AR; BC; BR; KP; NW; SW; Ft. Yukon; Kotzebue; Rampart **Xanthorhoe abrasaria** (H.-S.) [1, 2, 3, 23] Xanthorhoe baffinensis McD. [2, 7, 13, 15] BR; IN; NS; SP; MP 377-382 Dalton Hwy; Fairbanks; Nome;

Umiat. Note 22

**Xanthorhoe borealis** Hulst [1] SE; SW:AI; Berg Bay; Ketchikan; Kukak Bay; Nushaik River;

Shigak; Virginia Bay; Yakutak. Note 22

KP; PI; SC; SP; SW:AI; Anchorage; Cold Bay; King Salmon; Xanthorhoe decoloraria Esper [1, 2, 3, 7]

> Kodiak; Nome; Nulato; Popoff Is.; Rampart; Seward; Sourdough; Unalakleet

Xanthorhoe defensaria (Gn.) [2, 12, 13] Xanthorhoe ferrugata (Clerk) [1, 2, 3, 7]

Xanthorhoe fossaria Tayl. [1, 7, 23]

IN; KI; KP; SC; Cordova; Ketchikan; Palmer; Rampart AR; IN; SC; SE; SW; Anchorage; Fairbanks; King Salmon IN; KP; SC; SP; SW; Anchorage; Cold Bay; Ketchikan; King Salmon; Nome; Seward; MP 250 Richardson Hwy; Unalakleet

**Xanthorhoe labradorensis** (Pack.) [1, 2, 7]

AR; H; SC; SW; Anchorage; Ft. Wrangell; Ketchikan;

King Salmon; Nome; Nulato; Yakutat

Xanthorhoe pontiaria Tayl. [7, 23]

AR; IN; KP; PI; SE; Denali NPP; Charney Creek; Ketchikan;

Umiat

Xanthorhoe ramaria S. & C. [2]

Xanthorhoe species [23]

Zenophleps lignicolorata (Pack.) [6]

IN; SC; Anchorage; Fairbanks

KP

IN; Ft. Yukon

LASIOCAMPIDAE (2)

SC; Anchorage. Introduced in nursery stock and eradicated. Malacosoma californicum (Pack.) [4]

Note 23

Phyllodesma americana (Harr.) [1, 6, 23] IN; KP; SC; Palmer

SPHINGIDAE (7)

Hemaris thetis (Bdv.) [1] Sunshine Hill ca. 28 mi NW of Haines. Note 24

Hemaris thysbe (F.) [1, 2, 3] AR; IN; IN; S; Fairbanks Hyles gallii (Rottemburg) [1, 2, 3, 7] BC; IN; NS; SC; SE; Wrangell SC; Anchorage. Note 25 Manduca sexta (L.) [4]

Proserpinus flavofasciata (Wlk.) [1] IN

Smerinthus cerisyi Kby. [1] IN; Tok; Yarger Lake

Smerinthus ophthalmica Bdv. [1] H; SE; Haines Hwy mi 8.5, 40, 42, border station; Skagway.

Note 24

**NOCTUOIDEA** (237)

**NOTODONTIDAE** (6)

Clostera albosigma Fitch [1] IN: Fairbanks area

Furcula occidentalis gigans (McD.) [3] KP; SC; Ninilchik; Palmer

Furcula scolopendrina (Bdv.) [4] IN; Fairbanks

Gluphisia septentrionis Wlk. [1, 7] IN; mi 140 Steese Hwy

Gluphisia severa Hy. Edw. [1, 2]

Pheosia portlandia Hy. Edw. [1, 2, 14] H; KP; SC; SE; Wrangell. Note 26

### EREBIDAE (34)

#### **Subfamily Lymantriinae** (3)

Gynaephora rossii Curt. [1, 7] IN; NW; NS; SP; Barter Is.; Collinson Pt.; Mt. Fairplay;

Omilak; Unalakleet

Lymantria dispar (L.) [4] Non-resident occasionally found in pheremone traps.

Orgyia antiqua (L.) [1, 3, 7, 13, 14, 23] IN; KP; SC; SW; Anan Creek; Anchorage; Bethel; King

Salmon; Sterling; Willow

**Subfamily Arctiinae** (21)

Acerbia alpina (Quensel) [1] IN; NS; Colinson Pt.

Acsala anomala Benj. [1] BR; NS Arctia olschwangi Dubatolov [1] NS; Umiat

Arctia opulenta (Hy. Edw.) [1, 2, 7] IN; KI; NS; SC; SP; SW; Big Delta; Donnely Dome; Round

Island (Walrus Islands)

Dodia albertae Dyar [1, 2] BR; IN; Fairbanks area; 1.5 mi S of Tok

Eilema bicolor (Grt.) [1] IN

Estigmene acrea (Drury) [1] IN; Fairbanks. Note 27

Grammia philipiana Fgn. [1] AR; IN; NS

Grammia quenseli (Paykull) [1, 7] BR; IN; NS; NW; Umiat

Grammia speciosa (Mösch.) [1, 2] BC; IN Holarctia obliterata (Stretch) [1] IN; Tok

Holoarctia puengeleri sibirica Dubatolov [1, 6] AR; NS; NW; SP; mi 18 Teller Rd. Holoarctia near sordida (McD.) [1] AR (W. of Sheep Creek). Note 28

Hyperborea czekanowskii (Grum-Grshmaïlo)

[1, 6, 7]IN; SP; Ray Mts.; Torment Ck.

Lophocampa maculata Harr. [4] SE; Juneau. Note 29

Pararctia lapponica (Thunb.) [1, 2, 4, 7] AR; BR; IN; NS; NW; PI; SP; SW; College; mi 250 Richardson

Hwy; mi 28 Teller Rd.

Pararctia subnebulosa (Dyar) [1, 7] AR; BR; IN; NS; NW; PI; SP; SW; St. Matthew Is.; St. Paul Is.

Pararctia yarrowii (Stretch) NW, Kakagrak Hills. Note 30

BC; IN; KI; KP; SC; SE; Anchorage; Fairbanks; Seward Parasemia plantaginis (L.) [1, 2, 3, 4, 7, 23]

IN; KI; KP; NW; SC; Nogahabara Dunes Phragmatobia fuliginosa (L.) [1, 3, 4, 7, 23]

Platarctia parthenos (Harr.) [1, 3] AR; IN; NT; SC; SW

**Subfamily Herminiinae** (1)

Idia species [13] IN; Fairbanks

**Subfamily Hypeninae** (2)

Hypena californica Behr [1, 4, 7, 13, 23] IN; KP; SC; Delta Jct.; Palmer; Skilak Lake; Sunrise Η

Hypena decorata Sm. [1]

**Subfamily Scoliopteryginae** (1)

**Scoliopteryx libatrix** (L.) [1, 4, 13, 23] BC; IN; KP; SC; Fairbanks; Willow **Subfamily Hypenodinae** (1) Hypenodes palustris Fgn. [14, 23] KP **Subfamily Calpinae** (1) SW:AI. Note 31 Eudocima tyrannus (Gn.) **Subfamily Erebinae** (4) Ascalapha odorata (L.) [16] SE; Auke Bay 12 mi N of Juneau. Note 32 Caenurgina crassiuscula (Haw.) [1, 7, 13] AR; IN; NW; Big Delta; Fairbanks; Nogahabara Dunes = C. distincta (Neum.) **Drasteria hudsonica** (G. & R.) [1, 6, 15] AR; IN; SC; Ft. Yukon; MP 188.6, 226 Dalton Hwy Drasteria petricola (Wlk.) [2, 6, 15] IN; NS; Ft Yukon; MP 226 Dalton Hwy NOLIDAE (1) Nycteola frigidana (Wlk.) [4] BC NOCTUIDAE (196) Subfamily Plusiinae (26) Autographa ampla (Wlk.) [1, 2] Autographa buraetica (Stgr.) [2, 4, 5, 7, 23] IN; KP; SC; SP; Anchorage; Rampart Autographa californica (Speyer) [1, 3, 6, 7, 13] IN; SC; Anchorage; Fairbanks Autographa corusca (Stkr.) [5, 6] SE Panhandle; Ketchikan H; Chilkat Pass, AK/BC; Ketchikan Autographa metallica (Grt.) [1, 2, 6, 7] Autographa pseudogamma (Grt.) [1, 3, 7, 13] AR; H; IN; KI; SP; Fairbanks; Palmer; Unalakleet SC; Palmer Autographa sansoni Dod [5] H; Homer Plusia nichollae (Hamp.) [2, 6] Plusia putnami Grt. [1] IN Polychrysia esmeralda (Oberth.) IN; KP; Anchorage; College; Ruby; Unalakleet [1, 2, 3, 4, 6, 7, 23] **Syngrapha alias** (Ottol.) [1, 2, 4, 5, 7, 13] BC; H; IN; Fairbanks; Ketchikan; Palmer Syngrapha alticola (Wlk.) [1, 2, 6, 7] AR; BR; NW; SP; Cape Thompson; Driftwood; Rampart KP; Cooper Landing Syngrapha angulidens (Sm.) [7] Syngrapha borea (Auriv.) [1, 6] IN; SC; Ft. Yukon; Rampart Syngrapha celsa (H. Edw.) [19] Ketchikan Syngrapha diasema (Bdv.) [1, 5, 6] AR; IN; EC; Denali NPP: Rampart Syngrapha epigaea (Grt.) [6, 7] IN; SC; Fairbanks; Matanuska Syngrapha ignea (Grt.) [1, 6, 15] BR; IN; SC; Anchorage; Chatanika; Ft. Yukon; Skagway Syngrapha interrogationis (L.) [1] AR; BC; IN; SC; SP Syngrapha microgamma (Hbn.) [7, 15] MP 57 Dalton Hwy; Naknek R., King Salmon Syngrapha montana (Pack.) [7] BC; IN; mi 77, Steese Hwy Syngrapha octoscripta (Grt.) [4, 6, 19] BC; IN; SC; Anchorage; Ketchikan; Rampart Deer Mt. near Ketchikan Syngrapha orophila (Hampson) [19] SW:AI; Attu Syngrapha ottolenguii (Dyar) [5, 6] Syngrapha parilis (Hbn.) [2, 7] AR; BR; Umiat

**Syngrapha viridisigma** (Grt.) [1, 2, 3, 4, 5, 6, 7, 23]

BC; IN; KP; SC; Big Delta; Ketchikan; Rampart

**Subfamily Pantheinae** (1)

Panthea virginarius (Grt.) [6] SE; Ketchikan

**Subfamily Acronictinae** (3)

Acronicta lupini (Grt.) [7, 14, 23] KP

Acronicta menyanthidis (Vieweg) [1, 3, 8, 13] AR; GB; IN; Kanuti NWR (North America record). Note 33

Acronicta vulpina (Grt.) [13] Delta Jct.; Palmer

**Subfamily Oncocnemidinae** (5)

Sympistis dentata (Grt.) [2] IN; Fairbanks

Sympistis funebris (Hbn.) [2, 7] IN; BR; Atigun Pass; MP 60 Steese Hwy; Umiat Sympistis heliophila (Paykull) [1, 2, 7] AR; BR; IN; KP; SC; Paxson; Portage; Umiat Sympistis lapponica (Thunb.) [1, 2, 7] AR; BR; NS; SC; Driftwood, Utukok River Sympistis nigrita zetterstedtii (Stgr.) [1, 7] AR; BR; IN; NW; SP; Nome; Umiat

**Subfamily Agaristinae** (2)

Alypia langtoni Couper [1, 2, 3, 7] BC; IN; SC; SE; Curry; Skagway

**Androloma maccullochii** (Kby.) [1, 2, 3, 7] BC; IN; KP; Lawing

**Subfamily Heliothinae** (1)

Heliothis ononis (F.) [7] NW; Kobuk dunes, 90 mi E of Kotzebue

**Subfamily Noctuinae** (158)

Abagrotis placida (Grt.) [4, 7, 13] BC; IN; Delta Jct.; Fairbanks

Actebia balanitis (Grt.) [1, 3, 6]BC; IN; SC; SE; Anchorage area; MatanuskaActebia fennica (Tausch.) [1, 3, 6, 7]IN; KP; Chatanika; Fairbanks; Seldovia

Agrotis ruta (Evers.) [1, 3, 6, 7] AR; IN; NS; SP; SW; ANWR-Coleen River; Fairbanks; King

Salmon; Paxson, 22 mi N; Rampart; Unalakleet

Agrotis vetusta (Wlk.) [6, 13] IN; SC; Anchorage; Fairbanks; Palmer

Amphipoea americana (Speyer) [7] SE; Alexander Archipelago, Revillagigedo Island

Anaplectoides prasina ([D. & S.]) [2, 7] H; SE; Revillagigedo Island Anaplectoides pressus (Grt.) [2, 6] H; IN; SE; Ketchikan

Anarta nigrolunata Pack. [1, 2, 7, 14] NS; SP; MP 202-03 Dalton Hwy Note 34

Anarta trifolii (Hufn.) [1, 6, 13] IN; NW; SC; SP; Delta Jct.; Fairbanks; Ft. Yukon; Omilak;

Palmer

**Anathix puta** (G. & R.) [1, 7, 13, 20] IN; Fairbanks

Andropolia contacta (Wlk.) [1, 3, 13] AR; IN; SC; Fairbanks; Delta Jct.; Denali NPP; Palmer

Apamea alia (Gn.) [1, 2, 3, 6, 13] H; SC; Anchorage area; Palmer

Apamea amputatrix (Fitch) [6] SE; Ketchikan

**Apamea cinefacta** (Grt.) [6, 13] IN; SC; Palmer; Rampart

Apamea cogitata (Sm.) [1, 2, 3, 6, 7, 13, 23] H; IN; SC; SE; KP; Anchorage; Delta Jct.; Fairbanks;

Homer; Juneau; Kodiak; Palmer; Seward BC; IN; Anchorage area; Fairbanks; Palmer

**Apamea commoda commoda** (Wlk.) [7, 13] BC; IN; Anchorage area **Apamea contradicta** (Sm.) [2] SE; Devil's Mtn. Lodge

Apamea devastator (Br.) [1, 3, 7, 13] IN; SE; Delta Jct.; Fairbanks; Palmer

**Apamea indocilis** (Wlk.) [6] SE Panhandle; Ketchikan

Apamea inficita (Wlk.) [1, 3, 6, 7, 13] IN; KP; SC; SE; Fairbanks; Palmer; Skagway Apamea longula (Grt.) [2, 3] IN; Fairbanks Apamea remissa (Hbn.) [2, 3, 6, 7, 13] H; IN; KP; SC; SW (below SP); Delta Jct.; Fairbanks; Homer; Matanuska; Palmer SW; Kukak Bay, Harriman Expedition, 1899 Apamea rubirena (Treitschke) [6] Apamea scoparia Mikk., Mustelin & Laf. [3, 6, 7, 13]IN; SC; Delta Jct.; Anchorage area; Fairbanks; Palmer; Rampart Apamea sordens finitima (Gn.) [2, 6, 13] H; SC; SE; Palmer; Sitka Apamea vultuosa (Grt.) [6, 13] H; SC; SE; Ketchikan; Palmer; Sitka Apamea zeta pelagica Mikk. [7] St. Paul Island Apamea zeta nichollae Hamp. [6] AR; IN; KP; Denali NPP Brachylomia algens (Grt.) [13] IN; Fairbanks Caradrina montana (Bremer) [1, 2, 3, 7, 13, 20] AR; BC; IN; Big Delta; Fairbanks Cerastis enigmatica Laf. & Crabo [6, 7] SE Panhandle; Ketchikan Cerastis salicarum (Wlk.) [3, 6, 7] KP; SC; SE; Anchorage area; Hope; Ketchikan Chersotis juncta (Grt.) [1, 3, 6, 7] IN; SC; Fairbanks; Palmer Coenophila opacifrons (Grt.) [2, 4] BC (Alaska record, 27 July, 2012) Copablepharon alaskensis Crabo & Laf. [7, 20] NW (Kobuk and Nogahabara Dunes) Coranarta luteola (G. & R.) [2, 7, 15] AR; BC; IN; Big Delta; MP 284.5 Dalton Hwy; MP 115 Steese Hwy BC; IN; Fairbanks Coranarta macrostigma (Laf. & Mikk.) [2, 7] Cucullia strigata (Sm.) [6] SE; Ketchikan Diarsia dislocata (Sm.) [3, 7, 13] IN; KP; Delta Jct.; Fairbanks; Hope **Diarsia esurialis** (Grt.) [2, 3, 6, 13] H; IN; KP; PI; SE; SC; SW; Anchorage; Delta Jct.; Ft. Wrangel; Ketchikan; Palmer; IN; KI; KP; SW; Anchorage; Fairbanks; Naknek; Palmer Diarsia rosaria (Grt.) [3, 4, 7, 13, 23] IN; KP; SC; SW; Delta Jct.; Fairbanks; King Enargia infumata (Grt.) [3, 4, 7, 13, 20, 23] = E. *mephisto* Franc. Salmon; Pt. MacKenzie Eremobina claudens (Wlk.) [3, 6, 7] AR; IN; Fairbanks; Paxson, 22 mi N Eurois astricta Morr. [1, 2, 3, 6, 7, 13, 23] BC; H; IN; KI; KP; SC; SE; Fairbanks; Ketchikan; Kodiak; Palmer SC Eurois nigra (Sm.) [1] Eurois occulta (L.) [1, 2, 3, 4, 13, 23] BC; H; IN; KP; SC; Anchorage; Delta Jct.; Fairbanks; Palmer; Willow Euxoa adumbrata thanatologia (Dyar) [3, 4, 7] Anchorage; to western Alaska Euxoa aequalis (Harv.) [13] IN; Delta Jct. SE; KP Euxoa campestris (Grt.) [3, 23] Euxoa comosa (Morr.) [1, 2, 7, 13] AR; BC; KP; SP; Fairbanks; Homer; Paxson, 22 mi N; Unalakleet IN: Delta Jct. Euxoa cursoria wirima Hdwk. [13] Euxoa declarata (Wlk.) [7] IN; Fairbanks Euxoa divergens (Wlk.) [?] Eastern Alaska NS; Chandler River; Nogahabara Dunes Euxoa hyperborea Laf. [7] Euxoa idahoensis (Grt.) [1] IN; Fairbanks Euxoa infausta (Wlk.) [6] Н Euxoa nomas (Ersch.) [1, 6] SE to NW Alaska; Mt. Dewey Euxoa ochrogaster (Gn.) [1, 3, 4, 7, 13] BR; IN; KP; SC; SP; Anchorage; Fairbanks; Delta Jct.; Palmer; Unalakleet Euxoa ridingsiana (Grt.) [1, 7, 13] IN; Fairbanks; Palmer Euxoa rufula (Sm.) [2] Η Euxoa servita (Sm.) [2] BC

IN; Fairbanks; Palmer

Euxoa tessellata (Harr.) [3, 13]

Feltia beringiana (Laf. & Kono.) [2, 6, 7] NS; Sagwon Hills; Schrader Lake Feltia boreana (Laf.) [2, 6, 15] BR; NS; Ivotuk Hills; Schrader L.; MP 226 Dalton Hwy Feltia jaculifera (Gn.) [7] East central Alaska; Big Delta Feltia nigrita (Graeser) [?] NW Feltia woodiana (Laf.) [6, 15] IN; MP 298.5 Dalton Hwy Graphiphora augur (F.) [1, 2, 3, 4, 7, 13, 19, 23] BC; H; IN; KI; KP; SC; Anchorage; Fairbanks; Delta Jct.; Ketchikan; Kodiak; Palmer SC; Matanuska; Palmer Hada sutrina (Grt.) [6, 13] Hillia iris (Zett.) [1, 7, 20] AR; IN; Delta Junction; Fairbanks; Paxson, 22 mi N BC; IN; Fairbanks Hillia maida (Dyar) [1, 4, 13] IN; SW Hypocoena basistriga (McD.) [1] SC; Virgin Bay Hypocoena stigmatica (Evers.) [6] Hyppa brunneicrista Sm. [4, 13] IN; SW:AI; Delta Jct.; Fairbanks; Palmer Hyppa contrasta McD. [13] IN; KP; Delta Jct.; Palmer. Note 35 NW (Driftwood, Utukok R.) Isochlora sericea (Laf. & Kono.) [7] IN; KP; SC; Fairbanks; Palmer; Seward Lacanobia nevadae (Grt.) [3, 7, 13] Lacanobia radix (Wlk.) [13] IN; Delta Jct. Lacinipolia anguina (Grt.) [13] IN; Delta Jct. Lacinipolia olivacea (Morr.) [2, 6, 13] H; KP; SC; Fairbanks; Matanuska Lasionycta coracina Crabo & Laf. [6, 7] NW (Cape Thompson) Lasionycta illima Crabo & Laf. [7] Eastern Alaska; MP 315 Richardson Hwy Lasionycta leucocycla albertensis (McD.) [2, 7] NW; SC; Big Delta; Kotzebue Lasionycta mutilata (Sm.) [19] SE; Panhandle; Deer Mt. S. of Ketchikan Lasionycta perplexa (Sm.) [7] SC; Anchorage area Lasionycta phaea (Hamp.) [1, 6] BR Lasionycta quadrilunata yukona Laf. [6] AR; Denali NPP Lasionycta staudingeri preblei (Benj.) [6, 20] SW:AI; Western Alaska; St. Paul Is. Lasionycta taigata Laf. SW; Snipe Lake, Lake Clark NP. Photograph of live moth; 2012 Alaska record. Lasionycta subfumosa (Gib.) [7] SP; Omilak Leucania dia (Grt.) [3, 6, 13] IN; SC; SE; Delta Jct.; Fairbanks; Ketchikan; Palmer IN; KP; SC; Fairbanks; Palmer; Sunrise Litholomia napaea (Morr.) [1, 4, 7, 13, 20, 23] IN; KP; Fairbanks Lithomoia germana (Morr.) [1, 2, 3, 13] Lithophane georgii Grt. [2, 13] IN; Fairbanks Lithophane pexata Grt. [1, 3, 7, 13] IN; Fairbanks IN; KP; College; Fairbanks Lithophane thaxteri Grt. [1, 13] IN; SC; SP; Curry; Delta Jct.; Fairbanks; MP 226 Dalton Hwy; Melanchra pulverulenta (Sm.) [13, 7, 15, 19] Ketchikan; Palmer; Unalakleet Mniotype ducta (Grt.) [3, 6, 13] IN; SC; Fairbanks; Matanuska; Palmer IN; KP; PI; SC; Fairbanks; Ketchikan; Matanuska; Palmer; Mniotype tenera (Sm.) [3, 6, 7, 13, 19] Seward; Sterling Mythimna oxygala (Grt.) [6] SE; Ketchikan Mythimna yukonensis (Hamp.) [1, 2, 3, 7, 13, 23] H; IN; KP; NW; SC; SP; Anchorage; Delta Jct., Fairbanks; Palmer; Unalakleet Neoligia subjuncta (Sm.) [2] Η

Noctua pronuba (L.) [3, 4] KP; SC; SE Ochropleura implecta Laf. [6, 7] SE; Ketchikan

Orthosia hibisci (Gn.) [2, 4, 6, 13] IN; SC; SE; SW; Anchorage; Delta Jct.; Fairbanks; Ketchikan;

King Salmon; Palmer; Turnagain

Orthosia revicta (Morr.) [6] SE; Ketchikan Papestra cristifera (Wlk.) [1, 6] IN; SC; Matanuska

Papestra quadrata (Sm.) [1] ΙN Parabarrovia keelei Gib. [1, 7] AR; IN; NS; Chandler Lake Parabarrovia omilaki Laf. [7] SP; Darby Mts Paradiarsia littoralis (Pack.) [6, 15] IN; East central; MP 226 Dalton Hwy; Ramparts IN; SC; Anchorage; Dalton Hwy at Fish Creek; Delta Jct.; Parastichtis suspecta Hbn. [1, 2, 4, 7, 13] Fairbanks area; Ft. Richardson; Palmer; Rampart Peridroma saucia (Hbn.) Note 36 Phlogophora periculosa (Gn.) [19] SE; Ketchikan Polia nimbosa (Gn.) [2] Polia purpurissata (Grt.) [1, 2, 4, 13] BC; H; IN; SC; Delta Jct.; Palmer Polia richardsoni (Curt.) [1, 2, 7, 15] AR; BR; IN; NS; NW; SP Polia rogenhoferi (Mösch.) [13] IN; Delta Jct. Protolampra rufipectus (Morr.) [1, 2, 3, 4, 7, 13, 19] BC; EC; H; IN; Delta Jct.; Fairbanks; Ketchikan; Palmer Proxenus mendosa McD. [2, 7] SC; IN; Chatanika Psammopolia arietis (Grt.) [6] SW; Kukak Bay (1 record) = P. etacta (Sm.)Pseudohermonassa flavotincta (Sm.) [1, 2, 3] SE; KP Pseudorthodes irrorata (Sm.) [2] SP; Unalakleet. Note 37 Resapamea species [7] Spaelotis clandestina (Harr.) [1, 3, 7, 13] IN; KP; Delta Jct.; Palmer Sunira bicolorago (Gn.) [3, 13] IN; KP; Delta Jct.; Sterling Sunira verberata (Sm.) [1, 2, 3, 4, 6, 7, 13, 23] H; KP; SC; SW (Alaska Pen.); Ft. Richardson; Matanuska; Naknek Lake IN; SC; Palmer Ufeus hulstii Sm. [1, 6, 7] Xanthia tatago Laf. & Mikk. [?] Note 38 BR; IN; NS; SP; SW; Nome; Eagle Summit; Schrader Lake Xestia aequaeva (Benj.) [1, 6, 7] Xestia alaskae (Grt.) [1, 2, 3, 6, 7, 15] AR; BR; IN; NS; NW; PI; SP; SW; St. George Is.; Cape Thompson; Chandler Lake; Nome; St. George Is.; St. Paul Is. Xestia albuncula (Evers.) [1, 2, 7] BR; IN; KP; NS; PI; SW:AI; Big Delta Xestia atrata (Morr.) [6] IN; Rampart Xestia bryanti (Benj.) [1, 2, 7, 15] BR; IN; NE; NS; NW; SC; SE; Chandler Lake; Juneau; Eagle Summit; Schrader Lake **Xestia c-nigrum** (L.) [1, 2, 7, 13, 23] H; IN; KI; KP; SC; SE; SP; Palmer; Unalakleet Xestia fergusoni Laf. [6] SP; Shishmaref Xestia finatimis Laf. [2] Xestia homogena (McD.) [1, 7] AR; EC; IN; KP; Big Delta Xestia intermedia (Kono.) [7] SP; Nome, Bonanza Hill Xestia inuitica Laf. & Hensel [7] BR; MP 265 Dalton Hwy; 68°23'48", 149°23'53" Xestia liquidaria (Evers.) [1, 6, 7] BR; NE; NS; NW; Barter Is.; Cape Thompson; Chandler Lake; Pt. Barrow Xestia lorezi (Stgr.) [7] SC; Hatcher Pass near Palmer Xestia lupa Laf. & Mikk. [6] AR; Denali NPP Xestia lyngei (Rebel) [1, 6, 7, 20] IN; BR; NW; SP; Cape Thompson; Omilak (Darby Mts.); Schrader Lake Xestia mixta (Wlk.) [21] SE; Whale Pass, 45 mi S Petersburg Xestia oblata (Morr.) [2] Н Xestia okakensis (Pack.) [6] AR; NW; SC; Denali NPP Xestia perquiritata (Morr.) [2, 23] H; KP Xestia quieta (Hbn.) [1] BR **Xestia smithii** (Snell.) [1, 2, 3, 4, 7, 13, 19; 23] BC; H; IN; KP; SC; Fairbanks; Delta Jct.; Ketchikan; Palmer Xestia speciosa (Hbn.) [6, 7] AR; IN; KP; SP; Fairbanks; Denali NPP; Seward

Xestia tecta (Hbn.) [1, 2, 7] IN; KP; NW; SC; SP; SW; Big Delta; Nome; Portage;

Unalakleet

Xestia wockei troubridgei Laf. [2, 18] AR; NW

Xestia woodi Laf. & Kono. [7] BR; Noluck Lake Xylena cineritia (Grt.) [13] IN; Fairbanks

**Xylena nupera** (Lint.) [4, 13] KP; SC; SE; Anchorage; Sitka

**Xylena thoracica** (Putnam-Cramer)

[1, 2, 3, 4, 6, 7, 13] IN; SC; College; Delta Jct., Fairbanks; Matanuska

**Xylotype arcadia** B. & Benj. [1, 2, 7, 20] BC; IN; Fairbanks

# Species needing verification by voucher specimens and specious records

The species noted below have been cited in various ambiguous sources as occurring in Alaska. We have found no voucher material in collections. Several of the species have been recorded from central British Columbia and might reasonably be expected to occur in the panhandle of southeastern Alaska.

Gelechiidae: Scrobipalpula henshawiella (Bsk.) was inadvertently stated to occur in Alaska, (Lafontaine &

Wood, 1997). There are no Alaska records, but the moth may ultimately be found in Alaska

since it does occur in the Yukon Territory.

**Tortricidae:** Cydia leucobasis (Bsk.) IN

**Sphingidae:** Sphinx luscitiosa Clem. IN A dot placed in the middle of a map of Alaska in Riotte (1980),

but no text mention of Alaska, only Yukon Territory with no map dot, suggesting a plotting

error.

Geometridae: Drepanulatrix monicaria (Gn.) Panhandle. Ceanothus, the larval host for Drepanulatrix does

not occur in Alaska.

Ematurga amitaria (Gn.) [highly doubtful] Gabriola dyari Tayl. [highly doubtful]

Hydriomena nubilofasciata (Pack.) [4] Anchorage. A misidentification since the larvae feed on oak, which does not occur in Alaska. Accompanying data indicated association with willow. A photograph of a badly worn specimen was examined (by CDF). The abdomen of the moth was missing, but the habitus suggested one of the forms of H. furcata, which is a willow

feeder.

**Noctuidae:** Acronicta impressa Wlk. Previous Alaska records for this species are misidentifications of A.

menyanthidis (see Note 33), but A. impressa is known from the Yukon Territory and may

ultimately be found in Alaska.

Euxoa munis (Grt.). Specimens from southeastern Alaska brought to the CNC by a visiting collector were seen by JDL some years ago, but no vouchers were left and the specimens

cannot now be located in any depository.

Lasionycta secedens bohemani (Stgr.). Known from the Yukon Territory adjacent to the Alaska

border. Occurrence in Alaska was erroneously reported in Crabo & Lafontaine (2009).

# Notes

- 1. There has been considerable confusion between *Argyresthia calliphanes* and *A. goedartella*, and Alaska records may all pertain to *goedartella*.
- 2. The type of *Gnorimoschema valesiella alaskense* will be in the Povolny collection. Dr. Povolny is deceased and the location of his collection is not known to the authors. *Gnorimoschema alaskense* was raised to species status by Huemer and Karsholt (2010).
- 3. The CNC has paratypes of a species that is being described by J. B. Heppner (monograph in preparation with projected publication in 2013).
- 4. The species formerly considered to be Acleris emargana blackmorei Obr. has now been assigned to A. effractana (Karsholt et

- al., 2005).
- **5.** *Aphelia septentrionalis* Obr. was described from three Alaska specimens with the holotype placed in AMNH. Two paratypes were placed in USNM. Razowski subsequently described the two paratypes as *A. gregalis* based on minor genitalic differences from *septentrionalis*. Additional study is necessary to determine if *gregalis* is distinct from *septentrionalis*.
- 6. Apotomis spinulana. The locality was cited in Adamski & Peters (1986) as "mile 250 of Alaskan highway" which is in British Columbia, Canada. The dot in the distribution map is placed in interior Alaska. The citation might apply to mile 250 of the Richardson Hwy for which we have other species records. We have not be able to verify occurrence in Alaska, or to find a voucher specimen.
- 7. *Epinotia crenana* (Hbn.). Reported from Alaska, but all specimens examined by CDF have 11–14 cornuti (or sockets thereof) in the phallus characteristic of *A. columbia*, whereas *A. crenana* has 21–25.
- 8. There is one old specimen in the USNM that apparently accounts for the distribution record in Heinrich (1928).
- 9. Zeiraphera vancouverana. A series of this species has been taken twice at Dutch Harbor; first from Sitka spruce in late July, 1981 and then again in a pheromone trap during mid-summer, 2009. Sitka spruce, a known larval host, was introduced into Unalaska in the early 1800s, and perhaps the moth along with the plants.
- **10.** *Paranthrene robiniae*, *Synanthedon* species. Eichlin TD & Duckworth WD, 1988. Fascicle 5.1 in The Moths of America North of Mexico; see R. W. Hodges in the **References** for the series citation.
- 11. *Dioryctria reniculella*. We follow the treatment of Heinrich (1956) and treat *Dioryctria reniculella* and *D. abietivorella* as distinct species based upon differences in the genitalia.
- **12.** *Plodia interpunctella.* This species occurs in stored grain and seeds, such as bird seed mix, and has been found in Alaskan households. The moth occurs worldwide.
- **13.** The specimens were not available for dissection and may be *Dysstroma hersiliata*. These two species can be separated only by dissection.
- 14. In the past, Alaskan material has been identified as *Dysstroma walkerata* (Pears.), which is an eastern species.
- **15.** *Epirrita undulata*. Based on recent barcoding (*fide* B. C. Schmidt), the supposed differences that Harrison used to separate *E. undulata* from North American *E. autumnata* do not hold up, and the two taxa barcode as one species, but differently from true European *E. autumnata* (Bkh.). *Epirrita undulata* (Harrison) is thus the name available for North American material, Pohl et al. (2010).
- **16.** Lobophora nivigerata, L. simsata and L. magnoliatoidata all barcaode identically (fide B. C. Schmidt, CNC) and represent a single species. The name nivigerata has publication priority.
- 17. The species formerly identified in northwestern North America as *Psychophora suttoni*, which is an eastern species, represents a complex of at least six species in Alaska that includes both diurnal and nocturnal species. A revision is being prepared by B. C. Schmidt (CNC).
- 18. These two species are frequently difficult to separate without examining the genitalia. See Ferris (2007) for illustrations of the adults and genitalia.
- **19.** Northwestern specimens that have been called *Sicya crocearia* Pack. represent a form of *S. macularia*, and it remains to be determined if *S. crocearia* from California and Nevada is a valid species.
- **20.** Synonymization in Pohl et al., (2010).
- 21. Formerly *Epirranthis substriataria danbyi*; elevated to species status by Schmidt and Anweiler, 2010.
- **22.** The taxonomic status of *Xanthorhoe borealis* is uncertain and dissection of the holotype will be necessary to determine if *X. baffinensis* is just a form of it.
- 23. *Malacosoma californicum* is not a resident species, but reintroductions are possible.
- **24.** *Hemaris thetis* was revised to full species status by Schmidt, 2009. *Smerinthus ophthalmica* was removed from synonomy and elevated to full species status by Schmidt in Pohl, 2010.
- 25. Presumed to have been introduced in "tomato starts" shipped to a greenhouse springtime plant seller. Mature larva 25 July, 2009; adult 15 June, 2010. Establishment in Alaska is unlikely.
- **26.** There are two phenotypes (the white-patched "*rimosa*" and the dark *P. portlandia*) that occur in Alaska. They have identical male and female genitalia, but quite different genitalia from more eastern *P. rimosa* Pack. Ultimately another available name will most probably replace *portlandia*.
- 27. An adult female specimen was found in the kitchen of a Fairbanks residence in mid-April, 2012. It may have been introduced in some grocery produce brought into the house. The moth could become established in the state since the known larval host, *Melilotis officinalis* (L.) Lam. (= *M. albus* Desr.) (sweetclover) is fairly widely distributed in Alaska, including the Fairbanks area.
- 28. Holoarctia near sordida. This moth is an undescribed species being described by B. Christian Schmidt (CNC).
- **29.** Records and distribution information will be found in Holsten et al. (2001).
- 30. Pararctia yarrowii. Record based on a photograph taken in June, 2010 of a live adult in Cape Krusenstern National Monument.
- 31. *Eudocima tyrannus*. A live adult of this species was photographed (and released) on 23 June, 2001 by USFWS personnel on Buldir Island in the Aleutian chain. The specimen appeared to be very fresh and perhaps was transported as a pupa in fruit brought into the area, rather than entering as a stray adult (Kruse, 2002).
- **32.** *Ascalapha odorata*. This species is native to the extreme southern United States and Mexico, but adults are known to travel as strays over great distances northward well beyond their normal habitat. The one record is for 4 October, 1957.
- 33. Previously, Acronicta menyanthidis has been misidentified in Alaska as Acronicta impressa Wlk.
- 34. Anarta nigrolunata. Formerly associated with the Old World Anarta melanopa (Thunb.).
- **35.** *Hyppa contrasta. Hyppa rectilinea* (Esper), an Old World species, was recorded by the Harriman Alaska Expedition from Kukak Bay and is a misidentification of the very similar *H. contrasta*.

- **36.** *Peridroma saucia.* Occasional migrant, non-resident.
- **37.** Two species occur in the Yukon Territory, *Resapamea passer* and an undescribed species distinct (in genitalia) from *R. hedeni* (Graeser) from Russia. There is an unidentified female in the CNC that looks closer to the undescribed species, but the reniform spot is very narrow, unlike either of the other two.
- **38.** *Xanthia tatago*. Based on distribution statement of "Alaska" in Lafontaine & Mikkola, 2003.

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